# Clean Copy of the Revised Claims

## 1. A compound of formula I

wherein

R<sub>1</sub> and R<sub>3</sub> are each independently of the other ethyl, haloethyl, ethynyl, C<sub>1</sub>-C<sub>2</sub>alkoxy, C<sub>1</sub>-C<sub>2</sub>haloalkoxy, C<sub>1</sub>-C<sub>2</sub>alkylcarbonyl, C<sub>1</sub>-C<sub>2</sub>hydroxyalkyl or C<sub>1</sub>-C<sub>2</sub>alkoxycarbonyl;

Q is a group

$$R_{1}$$
 $R_{2}$ 
 $R_{31}$ 
 $R_{32}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{33}$ 
 $R_{34}$ 
 $R_{11}$ 
 $R_{11}$ 
 $R_{12}$ 
 $R_{13}$ 
 $R_{14}$ 
 $R_{15}$ 
 $R_{$ 

$$R_{17}$$
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{18}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 
 $R_{19}$ 

 $R_4$  and  $R_5$  are each independently of the other  $C_1\text{-}C_{10}$ alkyl,  $C_2\text{-}C_{10}$ alkenyl,  $C_2\text{-}C_{10}$ alkynyl,  $C_1\text{-}C_{10}$ haloalkyl,  $C_2\text{-}C_{10}$ alkoxyalkyl,  $C_3\text{-}C_{10}$ alkenyloxyalkyl,  $C_3\text{-}C_{10}$ alkynyloxyalkyl,  $C_2\text{-}C_{10}$ alkylthioalkyl,  $C_2\text{-}C_{10}$ alkylsulfinylalkyl,  $C_2\text{-}C_{10}$ alkylsulfonylalkyl,  $C_2\text{-}C_{10}$ alkylcarbonylalkyl,  $C_2\text{-}C_{10}\text{-}N\text{-}alkoxylminoalkyl,}$   $C_2\text{-}C_{10}$ alkoxycarbonylalkyl,  $C_1\text{-}C_{10}$ aminoalkyl,  $C_3\text{-}C_{10}$ dialkylaminoalkyl,  $C_2\text{-}C_{10}$ alkyl-aminoalkyl,  $C_1\text{-}C_1$ 0cyanoalkyl,  $C_4\text{-}C_1$ 0cycloalkylalkyl,  $C_1\text{-}C_1$ 0phenylalkyl,

C<sub>1</sub>-C<sub>10</sub>heteroarylalkyl, C<sub>1</sub>-C<sub>10</sub>phenoxyalkyl, C<sub>1</sub>-C<sub>10</sub>heteroaryloxyalkyl, C<sub>1</sub>-C<sub>10</sub>heter

R<sub>4</sub> and R<sub>5</sub>, together with the atoms to which they are bonded, form a 5- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur and that, in addition, may contain a fused or spiro-bound alkylene or alkenylene chain consisting of from 2 to 6 carbon atoms, which chain may in turn contain one or two hetero atoms selected from oxygen and sulfur, wherein the cyclic group may be substituted by phenyl or benzyl, which in turn may be substituted by halogen, C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>halo-alkyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, hydroxy, C<sub>1</sub>-C<sub>6</sub>alkoxy,

C1-C6alkoxy-C1-C8alkoxy, C1-C6haloalkoxy or by nitro;

 $R_2,\,R_6$  and  $R_{32}$  are each independently of the others  $C_1\text{-}C_{10}\text{alkyl},\,C_2\text{-}C_{10}\text{alkenyl},$ 

 $\label{eq:c2-C10-alkynyl} C_2-C_{10} \text{alkynyl}, \ C_1-C_{10} \text{haloalkyl}, \ C_2-C_{10} \text{alkoxyalkyl}, \ C_3-C_{10} \text{alkynyloxyalkyl}, \ C_2-C_{10} \text{alkylthioalkyl}, \ C_2-C_{10} \text{alkylsulfinylalkyl}, \ C_2-C_{10} \text{alkyl-sulfonylalkyl}, \ C_2-C_{10} \text{alkylcarbonylalkyl}, \ C_3-C_{10} \text{cycloalkyl}, \ \text{aryl or h teroaryl};}$ 

 $R_7$ ,  $R_{31}$  and  $R_{33}$  are each independently of the others hydrogen,  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl or  $C_2$ - $C_{10}$ alkoxyalkyl;

R<sub>8</sub> is hydrogen, C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>1</sub>-C<sub>10</sub>hal alkyl, C<sub>2</sub>-C<sub>10</sub>alk xyalkyl, C<sub>3</sub>-C<sub>10</sub>alkenyloxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkynyloxyalkyl, C<sub>2</sub>-C<sub>10</sub>alkylthloalkyl, C<sub>2</sub>-C<sub>10</sub>alkylsulfinylalkyl, C<sub>2</sub>-C<sub>10</sub>alkylsulfonylalkyl, C<sub>3</sub>-C<sub>10</sub>cycloalkyl, aryl or heteroaryl; or R<sub>6</sub> and R<sub>7</sub> or R<sub>2</sub> and R<sub>31</sub> or R<sub>32</sub> and R<sub>33</sub>, together with the atom to which they are bonded, form a saturated 3- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur; or R<sub>8</sub> and R<sub>8</sub>, together with the atoms to which they are bonded, form a 5- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

 $R_9$ ,  $R_{10}$ ,  $R_{11}$  and  $R_{12}$  are each independently of the others  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl,  $C_1$ - $C_{10}$ haloalkyl,  $C_2$ - $C_{10}$ alkoxyalkyl,  $C_3$ - $C_{10}$ alkenyloxyalkyl,

 $C_3$ - $C_{10}$ alkynyloxyalkyl,  $C_2$ - $C_{10}$ alkylthioalkyl,  $C_2$ - $C_{10}$ alkylsulfinylalkyl,  $C_2$ - $C_{10}$ alkyl-sulfonylalkyl,  $C_2$ - $C_{10}$ alkylcarbonylalkyl,  $C_3$ - $C_{10}$ cycloalkyl, aryl or heteroaryl; or

 $R_9$  and  $R_{11}$  or  $R_9$  and  $R_{10}$ , together with the atoms to which they are bonded, form a 5- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

 $R_{13}$ ,  $R_{14}$ ,  $R_{34}$  and  $R_{35}$  are each independently of the others  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl,  $C_1$ - $C_{10}$ haloalkyl,  $C_2$ - $C_{10}$ alkoxyalkyl,  $C_3$ - $C_{10}$ alkenyloxyalkyl,

 $C_3$ - $C_{10}$ alkynyloxyalkyl,  $C_2$ - $C_{10}$ alkylthioalkyl,  $C_2$ - $C_{10}$ alkylsulfinylalkyl,  $C_2$ - $C_{10}$ alkyl-sulfonylalkyl,  $C_2$ - $C_{10}$ alkylcarbonylalkyl,  $C_3$ - $C_{10}$ cycloalkyl, aryl or heteroaryl; or

 $R_{13}$  and  $R_{14}$  or  $R_{34}$  and  $R_{35}$ , together with the atoms to which they are bonded, form a 5- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

R<sub>15</sub> is C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>2</sub>-C<sub>10</sub>alkenyl, C<sub>2</sub>-C<sub>10</sub>alkynyl, C<sub>1</sub>-C<sub>10</sub>haloalkyl, C<sub>2</sub>-C<sub>10</sub>alkoxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkenyloxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkynyloxyalkyl, C<sub>2</sub>-C<sub>10</sub>alkylthioalkyl, C<sub>2</sub>-C<sub>10</sub>alkyl-sulfinylalkyl, C<sub>2</sub>-C<sub>10</sub>alkylsulfonylalkyl, C<sub>2</sub>-C<sub>10</sub>alkylcarbonylalkyl, C<sub>2</sub>-C<sub>10</sub>alkoxy-carbonylalkyl, C<sub>1</sub>-C<sub>10</sub>aminoalkyl, C<sub>3</sub>-C<sub>10</sub>dialkylamin alkyl, C<sub>2</sub>-C<sub>10</sub>alkylaminoalkyl, C<sub>1</sub>-C<sub>10</sub>cyanoalkyl, C<sub>4</sub>-

C<sub>10</sub>cycloalkylalkyl, C<sub>1</sub>-C<sub>10</sub>phenylalkyl, C<sub>1</sub>-C<sub>10</sub>heteroarylalkyl, C<sub>1</sub>-C<sub>10</sub>phenoxyalkyl, C<sub>1</sub>-C<sub>10</sub>h teroaryloxyalkyl, C<sub>1</sub>-C<sub>10</sub>nitroalkyl, C<sub>3</sub>-C<sub>10</sub>cycloalkyl, aryl or heteroaryl;

R<sub>18</sub> is C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>2</sub>-C<sub>10</sub>alkenyl, C<sub>2</sub>-C<sub>10</sub>alkynyl, C<sub>1</sub>-C<sub>10</sub>haloalkyl, C<sub>2</sub>-C<sub>10</sub>alkoxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkenyloxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkynyloxyalkyl, C<sub>2</sub>-C<sub>10</sub>alkylthiolkyl, C<sub>2</sub>-C<sub>10</sub>alkyl-sulfinylalkyl, C<sub>2</sub>-C<sub>10</sub>alkylsulfonylalkyl, C<sub>3</sub>-C<sub>10</sub>cycloalkyl, aryl or heteroaryl;

 $R_{17}$  is  $C_1\text{-}C_{10}$ alkyl,  $C_2\text{-}C_{10}$ alkenyl,  $C_2\text{-}C_{10}$ alkynyl,  $C_1\text{-}C_{10}$ haloalkyl,  $C_2\text{-}C_{10}$ alkoxyalkyl,  $C_3\text{-}C_{10}$ alkynyloxyalkyl,  $C_2\text{-}C_{10}$ alkylthioalkyl,  $C_2\text{-}C_{10}$ alkyl-sulfinylalkyl,  $C_2\text{-}C_{10}$ alkylcarbonylalkyl,  $C_3\text{-}C_{10}$ cycloalkyl, aryl or heteroaryl;  $R_{18}$  is hydrogen,  $C_2\text{-}C_{10}$ alkenyl,  $C_2\text{-}C_{10}$ alkynyl,  $C_1\text{-}C_{10}$ alkyl or  $C_1\text{-}C_1$ 0alkyl; or

 $R_{17}$  and  $R_{18}$ , together with the atoms to which they are bonded, form a 3- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

Y is oxygen, sulfur, C-R<sub>19</sub> or N-R<sub>36</sub>;

 $R_{19}$  and  $R_{38}$  are each independently of the other  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl,  $C_1$ - $C_{10}$ haloalkyl, phenyl or heteroaryl; or

 $R_{18}$  and  $R_{19}$  or  $R_{18}$  and  $R_{28}$ , together with the atom to which they are bonded, form a saturated 5- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

 $G_1$ ,  $G_2$ ,  $G_3$ ,  $G_4$ ,  $G_5$ ,  $G_6$ ,  $G_7$ ,  $G_8$ ,  $G_9$  and  $G_{10}$  are each independently of the others hydrogen,  $-C(X_1)-R_{20}$ ,  $-C(X_2)-X_3-R_{21}$ ,  $-C(X_4)-N(R_{22})-R_{23}$ ,  $-SO_2-R_{24}$ , an alkali metal cation, alkaline earth metal cation, sulfonium cation or ammonium cation,  $-P(X_5)(R_{25})-R_{26}$  or  $-CH_2-X_6-R_{27}$ ;

 $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$  are each independently of the others oxygen or sulfur;

 $R_{20},\,R_{21},\,R_{22}$  and  $R_{23}\,$  are each independently of the others hydrogen,  $C_{1-}$   $C_{10}$  alkyl,  $C_{2}$ - $C_{10}$  alkenyl,  $C_{2}$ - $C_{10}$  alkynyl,  $C_{1}$ - $C_{10}$  haloalkyl,  $C_{1}$ - $C_{10}$  cyanoalkyl,  $C_{1-}$   $C_{10}$  nitroalkyl,  $C_{1-}$   $C_{10}$  aminoalkyl,  $C_{1-}$   $C_{5}$  alkylamino- $C_{1-}$   $C_{5}$  alkylamino- $C_{1-}$   $C_{5}$  alkyl,  $C_{2-}$   $C_{8}$  dialkylamino- $C_{1-}$   $C_{5}$  alkyl,  $C_{3-}$   $C_{7}$  cycloalkyl- $C_{1-}$   $C_{5}$  alkyl,  $C_{2-}$   $C_{10}$  alkoxyalkyl,  $C_{4-}$   $C_{10}$  alkenyloxyalkyl,

 $C_4$ - $C_{10}$ alkynyloxyalkyl,  $C_2$ - $C_{10}$ alkylthioalkyl,  $C_1$ - $C_5$ alkylsulfoxyl- $C_1$ - $C_5$ alkyl,  $C_1$ - $C_{6} alkyl-sulfonyl-C_{1}-C_{6} alkyl,\ C_{2}-C_{8} alkylideneaminooxy-C_{1}-C_{5} alkyl,\ C_{1}-C_{6} alkyl-al$ carbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkoxycarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>amin carbonyl- $C_1$ - $C_5$ alkyl,  $C_2$ - $C_8$ dialkylaminocarbonyl- $C_1$ - $C_5$ alkyl,  $C_1$ - $C_5$ alkylcarbonylamino-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkylcarbonyl-(C<sub>2</sub>-C<sub>5</sub>alkyl)-aminoalkyl, C<sub>3</sub>-C<sub>6</sub>trialkylsllyl- $C_1$ - $C_5$ alkyl, phenyl- $C_1$ - $C_5$ alkyl, heteroaryl- $C_1$ - $C_5$ alkyl, phenoxy- $C_1$ - $C_5$ alkyl, heteroaryloxy- $C_1$ - $C_5$ alkyl,  $C_2$ - $C_5$ alkenyl,  $C_2$ - $C_5$ haloalkenyl,  $C_3$ - $C_8$ cycloalkyl, phenyl, or phenyl substituted by C<sub>1</sub>-C<sub>3</sub>alkyl, C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C₁-C₃haloalkoxy, halogen, cyano or by nitro, or heteroaryl or heteroarylamino, or heteroaryl or heteroarylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C1-C3alkoxy, C1-C3haloalkoxy, halogen, cyano or by nitro, diheteroarylamino, or diheteroarylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C1-C3alkoxy, C1-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, phenylamino, or phenylamino substituted by C<sub>1</sub>-C<sub>3</sub>alkyl,

C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, dlphenylamino, or diphenylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, or C<sub>3</sub>-C7cycloalkylamino, di-C3-C7cycloalkylamino or C3-C7cycloalkoxy;  $R_{24}$ ,  $R_{25}$  and  $R_{26}$  are hydrogen,  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl, C1-C10haloalkyl, C1-C10cyanoalkyl, C1-C10nitroalkyl, C1-C10aminoalkyl,  $C_1\text{-}C_5 alkylamino-C_1\text{-}C_5 alkyl, \ C_2\text{-}C_8 dialkylamino-C_1\text{-}C_5 alkyl, \ C_3\text{-}C_7 cycloalkyl-cycloalkyl C_1$ - $C_5$ alkyl,  $C_2$ - $C_{10}$ alkoxyalkyl,  $C_4$ - $C_{10}$ alkenyloxyalkyl,  $C_4$ - $C_{10}$ alkynyloxyalkyl, C2-C10alkylthioalkyl, C1-C5alkylsulfoxyl-C1-C5alkyl, C1-C5alkylsulfonyl-C1- $C_5$ alkyl,  $C_2$ - $C_8$ alkylideneaminooxy- $C_1$ - $C_5$ alkyl,  $C_1$ - $C_5$ alkylcarbonyl- $C_1$ - $C_5$ alkyl, C<sub>1</sub>-C<sub>5</sub>alkoxycarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>aminocarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>2</sub>-C<sub>8</sub>dialkylaminocarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkylcarbonylamino-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkylcarbonyl-( $C_2$ - $C_5$ alkyl)-aminoalkyl,  $C_3$ - $C_6$ trialkylsilyl- $C_1$ - $C_5$ alkyl, phenyl- $C_1$ - $C_5$ alkyl, heteroaryl- $C_1$ - $C_5$ alkyl, phenoxy- $C_1$ - $C_5$ alkyl, heteroaryloxy- $C_1$ - $C_5$ alkyl,  $C_2\text{-}C_5$ alkenyl,  $C_2\text{-}C_5$ haloalkenyl,  $C_3\text{-}C_6$ cycloalkyl, phenyl, or phenyl substituted by C1-C3alkyl,

C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, or heteroaryl or heteroarylamino, or heteroaryl or h t roarylamino substituted by  $C_1$ - $C_3$ alkyl,  $C_1$ - $C_3$ haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halogen, cyano or by nitro, diheteroarylamino, or dih teroarylamino substituted by C<sub>1</sub>-C<sub>3</sub>alkyl,

C1-C3hal -alkyl, C1-C3alk xy, C1-C3haloalkoxy, halogen, cyano r by nitro, phenylamino, or phenylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C1-C3alkoxy, C1-C3halo-alkoxy, halogen, cyan or by nitro, diph nylamino, or diphenylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C1-C3alkoxy, C1-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, or C<sub>3</sub>-C<sub>7</sub>cycloalkylamino, dl-C<sub>3</sub>-C7cycloalkylamino, C3-C7cycloalkoxy,

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 $C_1$ - $C_{10}$ alkoxy,  $C_1$ - $C_{10}$ haloalkoxy,  $C_1$ - $C_5$ alkylamino,  $C_2$ - $C_8$ dlalkylamino, benzyloxy or phenoxy, wherein the benzyl and phenyl groups may in turn besubstituted by

C<sub>1</sub>-C<sub>3</sub>alkyl, C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro:

R<sub>27</sub> is C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>2</sub>-C<sub>10</sub>alkenyl, C<sub>2</sub>-C<sub>10</sub>alkynyl, C<sub>1</sub>-C<sub>10</sub>haloalkyl, C<sub>1</sub>-C10cyanoalkyl, C1-C10nitroalkyl, C1-C10amlnoalkyl, C1-C5alkylamino-C1-C<sub>5</sub>alkyl, C<sub>2</sub>-C<sub>8</sub>dialkyl-amino-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>3</sub>-C<sub>7</sub>cycloalkyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>2</sub>-C10alkoxyalkyl, C4-C10alkenyl-oxyalkyl, C4-C10alkynyloxyalkyl, C2-C10alkylthioalkyl, C1-C5alkylsulfoxyl-C1-C5alkyl, C1-C5alkylsulfonyl-C1-C5alkyl, C2-C8alkylldeneaminooxy-C1-

C<sub>5</sub>alkyl,

C1-C5alkylcarbonyl-C1-C5alkyl, C1-C5alkoxycarbonyl-C1-C5alkyl, C1-C5aminocarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>2</sub>-C<sub>6</sub>dialkylaminocarbonyl-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkylcarbonylamino-C<sub>1</sub>-C<sub>5</sub>alkyl, C<sub>1</sub>-C<sub>5</sub>alkylcarbonyl-(C<sub>2</sub>-C<sub>5</sub>alkyl)-aminoalkyl, C3-C6trialkylsilyl-C1-C5alkyl, phenyl-C1-C5alkyl, heteroaryl-C1-C5alkyl, phenoxy-

C1-C5alkyl, heteroaryloxy-C1-C5alkyl, C2-C5alkenyl, C2-C5haloalkenyl, C3-Cacyclo-alkyl, phenyl, or phenyl substituted by C1-C3alkyl, C1-C3haloalkyl, C1-Calkoxy,

C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, or heteroaryl or heteroarylamino, or heteroaryl or heteroarylamino substituted by C1-C3alkyl, C1-C3haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halogen, cyano or by nitro, diheteroarylamino, diheteroarylamino substituted by C1-C3alkyl, C1-C3haloalkyl, C1-C3alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, or phenylamino, phenylamino substituted by  $C_1$ - $C_3$ alkyl,  $C_1$ - $C_3$ haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halogen, cyano or by nitro, diphenylamino, diphenylamino substituted by C1-C3alkyl,

 $C_1$ - $C_3$ haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halog n, cyano r by nitro,  $C_3$ - $C_7$ cycloalkylamino, di- $C_3$ - $C_7$ cycloalkylamin ,  $C_3$ - $C_7$ cyclo lkoxy or  $C_1$ - $C_1$ 0alkylcarbonyl;

Y2 is oxygen, sulfur, C-R140-R141 or N-R142,

R<sub>55</sub> is C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>2</sub>-C<sub>10</sub>alkenyl, C<sub>2</sub>-C<sub>10</sub>alkynyl, C<sub>1</sub>-C<sub>10</sub>haloalkyl, C<sub>2</sub>-

C<sub>10</sub>alkoxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkenyloxyalkyl, C<sub>3</sub>-C<sub>10</sub>alkynyloxyalkyl, C<sub>2</sub>-

 $C_{10}$ alkylthioalkyl,  $C_2$ - $C_{10}$ alkyl-sulfinylalkyl,  $C_2$ - $C_{10}$ alkylsulfonylalkyl,  $C_2$ -

C<sub>10</sub>alkylcarbonylalkyl, C<sub>3</sub>-C<sub>10</sub>cycloalkyl, aryl or heteroaryl;

 $R_{137}$  is hydrogen,  $C_1$ - $C_{10}$ alkyl,  $C_2$ - $C_{10}$ alkenyl,  $C_2$ - $C_{10}$ alkynyl or  $C_1$ -

C<sub>10</sub>alkoxyalkyl; or

R<sub>55</sub> and R<sub>137</sub>, together with the atoms to which they are bonded, form a 3- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

R<sub>138</sub> and R<sub>139</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>10</sub>alkyl,

C2-C10alkenyl, C2-C10alkynyl or C2-C10alkoxyalkyl; and

 $R_{140}$  and  $R_{141}$  are each independently of the other hydrogen,  $C_1$ - $C_{10}$ alkyl,

C2-C10alkenyl, C2-C10alkynyl or C1-C10alkoxyalkyl; or

 $R_{65}$  and C- $R_{140}$ , together with the atoms to which they are bonded, form a saturated or unsaturated 3- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

 $R_{142}$  is hydrogen,  $C_1$ - $C_{10}$ alkyl,  $C_1$ - $C_{10}$ haloalkyl,  $C_2$ - $C_{10}$ alkoxyalkyl,  $C_3$ - $C_{10}$ alkenyloxyalkyl,  $C_2$ - $C_{10}$ alkylthioalkyl,  $C_2$ - $C_{10}$ alkylsulfonylalkyl,  $C_3$ - $C_{10}$ cycloalkyl, aryl or heteroaryl; or

 $R_{55}$  and N-R<sub>142</sub>, together with the atoms to which they are bonded, form a saturated or unsaturated 3- to 7-membered cyclic group that may contain one or two hetero atoms selected from nitrogen, oxygen and sulfur;

or an agronomically tolerable salt, isomer or enantiomer of such a compound.

- 2. A compound according to claim 1, wherein Q is  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $Q_4$ ,  $Q_5$ ,  $Q_6$ ,  $Q_7$ ,  $Q_8$  or  $Q_9$ .
- 3. A process for the preparation of a compound of formula I according to claim 1, wherein a compound of formula XXX

Q-H (XXX)

wherein Q is  $Q_1$ ,  $Q_2$ ,  $Q_3$ ,  $Q_4$ ,  $Q_5$ ,  $Q_8$ ,  $Q_7$ ,  $Q_8$ ,  $Q_9$  or  $Q_{10}$ , the substituents of which, with the exception of  $G_1$ ,  $G_2$ ,  $G_3$ ,  $G_4$ ,  $G_5$ ,  $G_6$ ,  $G_7$ ,  $G_8$ ,  $G_9$  and  $G_{10}$ , have the meanings given above, and  $G_1$ ,  $G_2$ ,  $G_3$ ,  $G_4$ ,  $G_5$ ,  $G_6$ ,  $G_7$ ,  $G_8$ ,  $G_9$  and  $G_{10}$  are hydrogen, is reacted with a compound of formula XXXI

wherein  $R_1$  and  $R_3$  are as defined for formula I and Hal is chlorine, bromine or iodine, in the presence of an inert solvent, a base and a palladium catalyst at temperatures of from 30 to 250°C.

4. A herbicidal and plant growth-inhibiting composition that comprises a herbicidally effective amount of a compound of formula I according to claim 1, on an inert carrier.

5. A method of controlling undesired plant growth that comprises applying a herbicidally effective amount of an active ingredient of formula I according to claim 1, or of a composition comprising such an active ingredient, to the plants or to the locus thereof.

6. A method of inhibiting plant growth that comprises applying a herbicidally effective amount of an active ingredient of formula I according to claim 1, or of a composition comprising such an active ingredient, to the plants or to the locus thereof.

7. A selective-herbicidal composition that comprises as active Ingredient, In addition to customary inert formulation adjuvants, a mixture of a) a herbicidally effective amount of a compound of formula I according to claim 1, with the proviso that Q is other than  $Q_1$ ; and

b) a herbicide-antagonistically effectly am unt ither fa compound of formula X

$$\begin{array}{c}
X_{8} \\
O - CH_{2} \longrightarrow O - R_{37}
\end{array}$$
(X),

wherein

 $R_{37}$  is hydrogen,  $C_1$ - $C_8$ alkyl, or  $C_1$ - $C_8$ alkyl substituted by  $C_1$ - $C_8$ alkoxy or by  $C_3$ - $C_8$ alkenyloxy; and  $X_7$  is hydrogen or chlorine; or of a compound of formula  $X_1$ 

wherein

E is nitrogen or methine;

R<sub>38</sub> is -CCl<sub>3</sub>, phenyl or phenyl substituted by halogen;

 $R_{39}$  and  $R_{40}$  are each independently of the other hydrogen or halogen; and  $R_{41}$  is  $C_1$ - $C_4$ alkyl; or of a compound of formula XII

$$R_{47}O_2C$$
 $N$ 
 $R_{46}$ 
 $R_{45}$ 
 $R_{44}$ 
 $R_{44}$ 
 $R_{45}$ 

wherein  $\dot{R}_{44}$  and  $\dot{R}_{45}$  ar each independently of the other hydrogen or halogen, and

 $R_{46}$ ,  $R_{47}$  and  $R_{48}$  are each ind pendently if the oth rs  $C_1$ - $C_4$ alkyl, or of a compound if formula XIII

$$R_{51}$$
 $N$ -CO-N
 $R_{52}$ 
 $R_{53}$ 
 $R_{53}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 
 $R_{50}$ 

wherein A2 is a group

 $R_{51}$  and  $R_{52}$  are each independently of the other hydrogen,  $C_1$ - $C_8$ alkyl,  $C_3$ -

$$C_8 cycloalkyl, \ C_3 - C_8 alkenyl, \ C_3 - C_8 alkynyl, \ - C_4 alkyloxida = C_8 cycloalkyl, \ C_8 - C_8 alkynyl, \ - C_8 alkynyl, \ - C_8 alkynyl, \ - C_9 - C_9 alkyloxida = C_8 alkynyl, \ - C_9 - C_9 alkyloxida = C_9 - C_9 - C_9 alkyloxida = C_9 - C_9 -$$

substituted by 
$$C_1$$
- $C_4$ alkoxy or by  $R_y$ ; or  $R_{51}$  and  $R_{52}$  together

form a  $C_4$ - $C_6$ alkylene bridge that may be interrupted by oxygen, sulfur, SO, SO<sub>2</sub>, NH or by -N( $C_1$ - $C_4$ alkyl)-;

 $R_{53}$  is hydrogen or  $C_1$ - $C_4$ alkyl;

 $R_{49} \ is \ hydrogen, \ halogen, \ cyano, \ trifluoromethyl, \ nitro, \ C_1-C_4alkyl, \ C_1-C_4alkyl, \ C_1-C_4alkylsulfinyl, \ C_1-C_4alkylsulfonyl, \ -COOR_j, \ -CONR_kR_m, \ -COR_n, \ -SO_2NR_kR_m \ or \ -OSO_2-C_1-C_4alkyl; \ R_g \ is \ hydrogen, \ halogen, \ cyano, \ nitro, \ C_1-C_4alkyl, \ C_1-C_4haloalkyl, \ C_1-C_4alkylthio, \ C_1-C_4alkylsulfonyl, \ -COOR_j, \ -CONR_kR_m, \ -COR_n, \ -COR_$ 

-SO<sub>2</sub>NR<sub>k</sub>R<sub>m</sub>, -OSO<sub>2</sub>-C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alk xy, or C<sub>1</sub>-C<sub>6</sub>alkoxy substituted by C<sub>1</sub>-C<sub>4</sub>alkoxy or by hal g n, C<sub>3</sub>-C<sub>6</sub>alkenyloxy, or C<sub>3</sub>-C<sub>6</sub>alkenyloxy substituted by halogen, or C<sub>3</sub>-C<sub>6</sub>alkynyloxy, or R<sub>49</sub> and R<sub>50</sub> together f rm a C<sub>3</sub>-C<sub>4</sub>alkylene bridge that may be substituted by halogen or by C<sub>1</sub>-C<sub>4</sub>alkyl, or together form a C<sub>3</sub>-C<sub>4</sub>alkenylene bridge that may be substituted by halogen or by C<sub>1</sub>-C<sub>4</sub>alkyl, or together form a C<sub>4</sub>alkadienylene bridge that may be substituted by halogen or by C<sub>1</sub>-C<sub>4</sub>alkyl;

 $R_{50}$  and  $R_h$  are each independently of the other hydrogen, halogen,  $C_1$ - $C_4$ alkyl, trifluoromethyl,  $C_1$ - $C_8$ alkoxy,  $C_1$ - $C_8$ alkylthio or -COOR<sub>j</sub>;  $R_c$  is hydrogen, halogen, nitro,  $C_1$ - $C_4$ alkyl or methoxy;  $R_d$  is hydrogen, halogen, nitro,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkylthio,  $C_1$ - $C_4$ alkylsulfinyl,  $C_1$ - $C_4$ alkylsulfonyl, -COOR<sub>j</sub> or CONR<sub>k</sub>R<sub>m</sub>;

 $R_{\theta}$  is hydrogen, halogen,  $C_1$ - $C_4$ alkyl, -COOR<sub>I</sub>, trifluoromethyl or methoxy, or  $R_d$  and  $R_{\theta}$  together form a  $C_3$ - $C_4$ alkylene bridge;

Rp is hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, -COOR<sub>j</sub>, trifluoromethyl or methoxy; Rq is hydrogen, halogen, nitro, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl, -COOR<sub>j</sub> or CONR<sub>k</sub>R<sub>m</sub>; or Rp and Rq together form a C<sub>3</sub>-C<sub>4</sub>alkylene bridge;

Rr is hydrogen, halogen,  $C_1$ - $C_4$ alkyl, -COOR<sub>j</sub>, trifluoromethyl or methoxy; Rs is hydrogen, halogen, nitro,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkylthio,  $C_1$ - $C_4$ alkylsulfinyl,  $C_1$ - $C_4$ alkylsulfonyl, -COOR<sub>j</sub> or CONR<sub>k</sub>R<sub>m</sub>; or Rr and Rs together form a  $C_3$ - $C_4$ alkylene bridge;

Rt Is hydrogen, halogen,  $C_1$ - $C_4$ alkyl, -COOR<sub>j</sub>, trifluoromethyl or methoxy; Ru is hydrogen, halogen, nitro,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkylsulfinyl,  $C_1$ - $C_4$ alkylsulfonyl, -COOR<sub>j</sub> or CONR<sub>k</sub>R<sub>m</sub>; , or Rv and Ru together form a  $C_3$ - $C_4$ alkylene bridge;

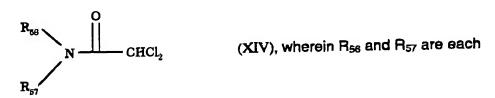
R₁ and Rv are hydrogen, halogen or C₁-C₄alkyl;

 $R_x$  and  $R_y$  are each independently of the other hydrogen, halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkylthio, -COOR<sub>54</sub>, trifluoromethyl, nitro or cyano;

 $R_i$ ,  $R_k$  and  $R_m$  are each independently of the others hydrogen or  $C_1$ - $C_4$ alkyl; or  $R_k$  and  $R_m$  together form a  $C_4$ - $C_6$ alkylene bridge that may be interrupted by oxygen, NH or by -N( $C_1$ - $C_4$ alkyl)-;

 $R_n$  is  $C_1$ - $C_4$ alkyl, phenyl, or phenyl substituted by halogen,  $C_1$ - $C_4$ alkyl, methoxy, nitro or by trifluoromethyl;

R<sub>54</sub> Is hydrogen, C<sub>1</sub>-C<sub>10</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy-C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkylthio-C<sub>1</sub>-C4alkyl, di-C1-C4alkylamino-C1-C4alkyl, halo-C1-C8alkyl, C2-C8alk nyl, halo-C2-C<sub>8</sub>alkenyl, C<sub>3</sub>-C<sub>8</sub>alkynyl, C<sub>3</sub>-C<sub>7</sub>cycloalkyl, halo-C<sub>3</sub>-C<sub>7</sub>cycloalkyl, C<sub>1</sub>-C<sub>8</sub>alkylcarbonyl, allylcarbonyl, C<sub>3</sub>-C<sub>7</sub>cycloalkylcarbonyl, benzoyl, which is unsubstituted or substituted on the phenyl ring identically or differently up to three times by halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, halo-C<sub>1</sub>-C<sub>4</sub>alkyl, halo-C<sub>1</sub>-C<sub>4</sub>alkoxy or C<sub>1</sub>-C<sub>4</sub>alkoxy; or furoyl, thienyl; or C<sub>1</sub>-C<sub>4</sub>alkyl substituted by phenyl, halophenyl, C<sub>1</sub>-C<sub>4</sub>alkylphenyl, C<sub>1</sub>-C<sub>4</sub>alkoxyphenyl, halo-C<sub>1</sub>-C<sub>4</sub>alkylphenyl, halo-C<sub>1</sub>-C<sub>4</sub>alkoxyphenyl, C1-C6alkoxycarbonyl, C1-C4alkoxy-C1-C8alkoxycarbonyl, C3-C<sub>8</sub>alkenyloxycarbonyl, C<sub>3</sub>-C<sub>8</sub>alkynyloxycarbonyl, C<sub>1</sub>-C<sub>8</sub>alkylthiocarbonyl, C<sub>3</sub>-C<sub>8</sub>alkenylthiocarbonyl, C<sub>3</sub>-C<sub>8</sub>alkynylthiocarbonyl, carbamoyl, mono-C<sub>1</sub>-C4alkylaminocarbonyl, di-C1-C4alkylaminocarbonyl; or phenylaminocarbonyl, which is unsubstituted or substituted on the phenyl identically or differently up to three times by halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, halo-C<sub>1</sub>-C<sub>4</sub>alkyl, halo-C<sub>1</sub>-C<sub>4</sub>alkoxy or C<sub>1</sub>-C4alkoxy or once by cyano or nitro; or dioxolan-2-yl, which is unsubstituted or substituted by one or two C1-C4alkyl radicals, or dioxan-2-yl, which is unsubstituted or substituted by one or two C1-C4alkyl radicals, or C1-C4alkyl, which is substituted by cyano, nitro, carboxyl or by C1-C8alkylthio-C1-Calkoxycarbonyl; or of a compound of formula XIV



Independently of the other  $C_1$ - $C_6$ alkyl or  $C_2$ - $C_6$ alkenyl; or  $R_{56}$  and  $R_{57}$  together

are 
$$R_{59}$$
;  $R_{58}$  and  $R_{59}$  are each independently of the other

hydrogen or 
$$C_1$$
- $C_6$ alkyl; or  $R_{56}$  and  $R_{57}$  together are  $R_{60}$ 

 $R_{60}$  and  $R_{61}$  are each independently of the other  $C_1\text{-}C_4alkyl,$  or  $R_{60}$  and  $R_{61}$  together are -(CH<sub>2</sub>)<sub>5</sub>- ;

or R<sub>56</sub> and R<sub>57</sub> together are 
$$R_{70}$$
  $R_{70}$   $R_{70}$ 

 $R_{63}$ ,  $R_{64}$ ,  $R_{65}$ ,  $R_{86}$ ,  $R_{87}$ ,  $R_{68}$ ,  $R_{69}$ ,  $R_{70}$ ,  $R_{71}$ ,  $R_{72}$ ,  $R_{73}$ ,  $R_{74}$ ,  $R_{75}$ ,  $R_{78}$ ,  $R_{77}$  and  $R_{78}$  are each independently of the others hydrogen or  $C_1$ - $C_4$ alkyl; or of a compound of formula XV

$$R_{80}$$
 $N-0$ 
 $O$ 
 $O$ 
 $(XV)$ 

wherein  $R_{80}$  is hydrogen or chlorine and  $R_{79}$  is cyano or trifluoromethyl; or of a compound of formula XVI

wherein  $R_{81}$  is hydrogen or methyl; or of a compound of formula XVI

wherein R<sub>81</sub> is hydrogen or methyl; or of a compound of formula XVII

### wherein

 $R_{82}$  is hydrogen,  $C_1$ - $C_4$ alkyl, or  $C_1$ - $C_4$ alkyl substituted by  $C_1$ - $C_4$ alkyl- $X_2$ - or by  $C_1$ - $C_4$ haloalkyl- $X_2$ -, or is  $C_1$ - $C_4$ haloalkyl, nitro, cyano, -COOR<sub>85</sub>, -NR<sub>86</sub>R<sub>87</sub>, -SO<sub>2</sub>NR<sub>88</sub>R<sub>89</sub> or -CONR<sub>90</sub>R<sub>91</sub>;

R<sub>83</sub> is hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, trifluoromethyl, C<sub>1</sub>-C<sub>4</sub>alkoxy or C<sub>1</sub>-C<sub>4</sub>haloalkoxy;

R<sub>84</sub> is hydrogen, halogen or C<sub>1</sub>-C<sub>4</sub>alkyl;

U, V,  $W_1$  and  $Z_4$  are each independently of the others oxygen, sulfur,

$$C = \overset{H}{C}$$
 , wherein  $\dot{R}_{102}$  is  $C_2\text{-}C_4$  alkenyl or  $C_2\text{-}C_4$  alkynyl; with the

provisos that

a) at least one of the ring members U, V, W<sub>1</sub> or Z<sub>4</sub> is carbonyl, and a ring member adjacent to that ring member or to those ring members is the group

$$C = \bigcap_{R_{95}}^{O} \bigcap_{R_{96}}^{C = C} \bigcap_{R_{95}}^{C = C} \bigcap_{R_{96}}^{R_{102}} \bigcap_{R_{102}}^{R_{102}} \bigcap_{R_{102}}^{R$$

once; and

b) two adjacent ring members U and V, V and  $W_1$  and  $W_1$  and  $Z_4$  cannot simultaneously be oxygen;

 $R_{95}$  and  $R_{96}$  are each independently of the other hydrogen or  $C_1$ - $C_8$ alkyl; or  $R_{95}$  and  $R_{96}$  together form a  $C_2$ - $C_6$ alkylene group;

A<sub>1</sub> is R<sub>99</sub>-Y<sub>1</sub>- or -NR<sub>97</sub>R<sub>98</sub>;

X<sub>2</sub> is oxygen or -S(O)<sub>0</sub>;

Y<sub>1</sub> is oxygen or sulfur;

 $R_{99}$  is hydrogen,  $C_1$ - $C_8$ alkyl,  $C_1$ - $C_8$ haloalkyl,  $C_1$ - $C_4$ alkoxy- $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyloxy- $C_1$ - $C_8$ alkyl, or phenyl- $C_1$ - $C_8$ alkyl in which the phenyl ring may be substituted by halogen,  $C_1$ - $C_4$ alkyl, trifluoromethyl, methoxy or by methyl- $S(O)_8$ -, or is  $C_3$ - $C_6$ alkenyl,  $C_3$ - $C_6$ haloalkenyl, phenyl- $C_3$ - $C_6$ alkynyl, oxetanyl, furyl or tetrahydrofuryl;

R<sub>85</sub> is hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl;

R<sub>88</sub> is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl or C<sub>1</sub>-C<sub>4</sub>alkylcarbonyl;

R<sub>87</sub> is hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl; or

R<sub>86</sub> and R<sub>87</sub> together form a C<sub>4</sub>- or C<sub>5</sub>-alkylene group;

 $R_{88}$ ,  $R_{89}$ ,  $R_{90}$  and  $R_{91}$  are each independently of the others hydrogen or  $C_{1}$ - $C_{4}$ alkyl; or  $R_{88}$  together with  $R_{89}$ , or  $R_{90}$  together with  $R_{91}$ , are each independently of the other  $C_{4}$ - or  $C_{5}$ -alkylene in which one carbon atom may have been replaced by oxygen or by sulfur, or one or two carbon atoms may have been replaced by  $-NR_{100}$ -;

 $R_{92}$ ,  $R_{100}$  and  $R_{93}$  are each indipendintly of the others hydrogen or  $C_{1}$ -Calkyl; r

R<sub>92</sub> and R<sub>93</sub> together are C<sub>2</sub>-C<sub>6</sub>alkylene;

R<sub>94</sub> is hydrogen or C<sub>1</sub>-C<sub>8</sub>alkyl;

 $R_{97}$  is hydrogen,  $C_1$ - $C_8$ alkyl, phenyl or phenyl- $C_1$ - $C_8$ alkyl, wherein the phenyl rings may be substituted by fluorine, chlorine, bromine, nitro, cyano, -OCH<sub>3</sub>,  $C_1$ - $C_4$ alkyl or by CH<sub>3</sub>SO<sub>2</sub>-, or is  $C_1$ - $C_4$ alkoxy- $C_1$ - $C_8$ alkyl,  $C_3$ - $C_6$ alkenyl or  $C_3$ - $C_8$ alkynyl;

R<sub>98</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>alkenyl or C<sub>3</sub>-C<sub>6</sub>alkynyl; or R<sub>97</sub> and R<sub>98</sub> together are C<sub>4</sub>- or C<sub>5</sub>-alkylene in which one carbon atom may have been replaced by oxygen or by sulfur, or one or two carbon atoms may have been replaced by -NR<sub>101</sub>-;

R<sub>101</sub> is hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl;

r is 0 or 1; and

s is 0, 1 or 2,

or of a compound of formula XVIII

NHSO<sub>2</sub>

$$N = N$$
 $N = R_{106}$ 
 $R_{106}$ 
(XVIII).

wherein  $R_{103}$  is hydrogen,  $C_1$ - $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl,  $C_3$ - $C_6$ alkenyl or  $C_3$ - $C_6$ alkynyl; and  $R_{104}$ ,  $R_{105}$  and  $R_{106}$  are each independently of the others hydrogen,  $C_1$ - $C_6$ alkyl,  $C_3$ - $C_6$ cycloalkyl or  $C_1$ - $C_6$ alkoxy, with the proviso that one of the substituents  $R_{104}$ ,  $R_{105}$  and  $R_{106}$  is other than hydrogen; or of a compound of formula XIX

$$(R_{107})n$$
 $Z_5$ 
 $R_{108}$ 
 $O$ 
 $R_{109}$ 
 $(X|X)$ 

wherein  $Z_5$  is N or CH, n is 0, 1, 2 r 3 when  $Z_5$  is N, and n is 0, 1, 2, 3 r 4 when  $Z_5$  is CH, R<sub>107</sub> is halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>haloalkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, C<sub>1</sub>-C<sub>4</sub>haloalkoxy, nitro, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulf nyl, C<sub>1</sub>-C<sub>4</sub>alkoxycarbonyl, phenyl or phenoxy, or phenyl or phenoxy substituted by C<sub>1</sub>-C<sub>3</sub>alkyl, C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro; R<sub>108</sub> is hydrogen or C<sub>1</sub>-C<sub>4</sub>alkyl, R<sub>109</sub> is hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, C<sub>2</sub>-C<sub>6</sub>alkenyl, C<sub>2</sub>-C<sub>6</sub>alkynyl, C<sub>1</sub>-C<sub>4</sub>haloalkyl, C<sub>2</sub>-C<sub>6</sub>haloalkenyl, C<sub>2</sub>-C<sub>6</sub>alkylthio-C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl-C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>alkyl);

or of a compound of formula XX

wherein  $Z_6$  is oxygen or N-R<sub>110</sub> and R<sub>110</sub> is a group of formula

wherein  $R_{111}$  and  $R_{112}$  are each independently of the other cyano, hydrogen,  $C_1$ - $C_4$ alkyl,  $C_3$ - $C_6$ cycloalkyl,  $C_2$ - $C_6$ alkenyl, aryl, phenyl or heteroaryl, or phenyl, aryl or heteroaryl substituted by  $C_1$ - $C_3$ alkyl,  $C_1$ - $C_3$ haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halogen, cyano or by nitro;

or of a compound of formula XXI

wherein  $Z_7$  is oxyg n, sulfur, S=O, SO<sub>2</sub> or CH<sub>2</sub>, R<sub>113</sub> and R<sub>114</sub> are ach independ ntly of the other hydr gen, hal gen or C<sub>1</sub>-C<sub>4</sub>alkyl, W<sub>2</sub> and W<sub>3</sub> are

each independently of the other  $CH_2COOR_{115}$  or  $COOR_{0115}$  or t g ther are a gr up of formula - $(CH_2)C(O)$ -O-C(O)- $(CH_2)$ -, and  $R_{115}$  and  $R_{0115}$  ar each independently of the other hydr gen,  $C_1$ - $C_4$ alkyl,  $C_2$ - $C_4$ alkenyl,  $C_2$ - $C_6$ alkynyl,  $C_3$ - $C_6$ cycloalkyl,  $C_1$ - $C_4$ haloalkyl, or a metal cation or an ammonium cation; or of a compound of formula XXII

wherein  $R_{119}$  and  $R_{120}$  are each independently of the other hydrogen, halogen or  $C_1$ - $C_4$ haloalkyl,  $R_{121}$  is hydrogen,  $C_1$ - $C_4$ alkyl,  $C_3$ - $C_4$ alkenyl,  $C_3$ - $C_4$ alkynyl,  $C_1$ - $C_4$ haloalkyl,  $C_3$ - $C_6$ cycloalkyl, a metal cation or an ammonium cation,  $Z_8$  is N, CH, C-F or C-Cl and  $W_4$  is a group of formula

wherein  $R_{122}$  and  $R_{123}$  are each independently of the other hydrogen or  $C_1$ -  $C_4$ alkyl and  $R_{124}$  and  $R_{125}$  are each independently of the other hydrogen or  $C_1$ -  $C_4$ alkyl;

or of a compound of formula XXIII

wherein  $R_{128}$  is hydrogen, cyano, halogen,  $C_1$ - $C_4$ alkyl,  $C_3$ - $C_8$ cycloalkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkoxycarbonyl,  $C_1$ - $C_4$ alkylthiocarbonyl, -NH- $R_{128}$ , -C(O)NH- $R_{0128}$ , aryl or heteroaryl, or aryl or heteroaryl substituted by  $C_1$ - $C_3$ alkyl,  $C_1$ - $C_3$ haloalkyl,  $C_1$ - $C_3$ alkoxy,  $C_1$ - $C_3$ haloalkoxy, halogen, cyano r by nitro;  $R_{127}$  is hydrogen, cyano, nitro, halog n,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ hal alkyl,  $C_1$ - $C_4$ alkoxy or  $C_1$ - $C_4$ thioalkyl; and

R<sub>128</sub> and R<sub>0128</sub> are each indep indentity of the other C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>hal alkyl, C<sub>3</sub>-C<sub>4</sub>alk nyl, C<sub>3</sub>-C<sub>4</sub>alkynyl, C<sub>3</sub>-C<sub>4</sub>cycloalkyl, aryl or hiteroaryl, or aryl in heteroaryl substituted by C<sub>1</sub>-C<sub>3</sub>alkyl, C<sub>1</sub>-C<sub>3</sub>haloalkyl, C<sub>1</sub>-C<sub>3</sub>alkoxy, C<sub>1</sub>-C<sub>3</sub>haloalkoxy, halogen, cyano or by nitro, formyl, C<sub>1</sub>-C<sub>4</sub>alkylcarbonyl or C<sub>1</sub>-C<sub>4</sub>alkylsufonyl;

or of a compound of formula XXIV

$$R_{132}$$
 $R_{131}$ 
 $R_{130}$ 
 $R_{132}$ 
 $R_{133}$ 
 $R_{129}$ 
(XXIV).

wherein R<sub>129</sub> and R<sub>130</sub> are each independently of the other hydrogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>haloalkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, mono-C<sub>1</sub>-C<sub>8</sub>- or di-C<sub>1</sub>-C<sub>8</sub>-alkylamino, C<sub>3</sub>-C<sub>6</sub>cycloalkyl, C<sub>1</sub>-C<sub>4</sub>thioalkyl, phenyl or heteroaryl, R<sub>191</sub> has the meanings of R<sub>129</sub> and in addition is OH, NH<sub>2</sub>, halogen, di-C<sub>1</sub>-C<sub>4</sub>aminoalkyl, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl or C<sub>1</sub>-C<sub>4</sub>alkoxycarbonyl, R<sub>132</sub> has the meanings of R<sub>129</sub> and in addition is cyano, nitro, carboxyl, C<sub>1</sub>-C<sub>4</sub>alkoxycarbonyl, di-C<sub>1</sub>-C<sub>4</sub>aminoalkyl, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl, SO<sub>2</sub>-OH, i-C<sub>1</sub>-C<sub>4</sub>aminoalkylsulfonyl or C<sub>1</sub>-C<sub>4</sub>alkoxysulfonyl, R<sub>133</sub> has the meanings of R<sub>129</sub> and in addition is OH, NH<sub>2</sub>, halogen, di-C<sub>1</sub>-C<sub>4</sub>aminoalkyl, pyrrolidin-1-yl, piperidin-1-yl, morpholin-1-yl, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl, C<sub>1</sub>-C<sub>4</sub>alkoxycarbonyl, phenoxy, naphthoxy, phenylamino, benzoyloxy or phenylsulfonyloxy; or of a compound of formula XXV

wherein R<sub>134</sub> is hydrogen, C₄alkyl, C<sub>1</sub>-C₄haloalkyl, C<sub>2</sub>-C₄ lkenyl, C<sub>2</sub>-C₄alkynyl or C<sub>1</sub>-C₄alkoxy-C<sub>1</sub>-C₄alkyl, R<sub>135</sub> is hydrogen, halogen, C<sub>1</sub>-C₄alkyl, C<sub>1</sub>-

 $C_4$ haloalkyl or  $C_1$ - $C_4$ alkoxy and  $R_{138}$  is hydrogen, halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ haloalkyl or  $C_1$ - $C_4$ alkoxy, with the proviso that  $R_{135}$  and  $R_{138}$  are not simultaneously hydrogen, or of formula XXVI

wherein

R<sub>143</sub> is hydrogen, an alkali metal cation, alkaline earth metal cation, sulfonium cation or ethyl;

or of formula XXVII

wherein  $R_{144}$  and  $R_{145}$  are each independently of the other hydrogen,  $C_1$ - $C_6$ alkyl,  $C_2$ - $C_6$ alkenyl,  $C_2$ - $C_6$ alkynyl or  $C_3$ - $C_6$ cycloalkyl;  $R_{146}$  is hydrogen, halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_6$ haloalkyl or  $C_1$ - $C_6$ haloalkoxy;  $R_{147}$  is hydrogen, halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ haloalkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkylthio,  $C_1$ - $C_4$ alkoxycarbonyl or nitro;  $C_1$ - $C_4$  and

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m is 1 or 2;

or of formula XXVIII

wherein

R<sub>148</sub> is hydrogen, C<sub>1</sub>-C<sub>8</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, C<sub>1</sub>-C<sub>8</sub>alkylthio, C<sub>3</sub>-C<sub>8</sub>cycloalkyl, phenyl, phenyl-C<sub>1</sub>-C<sub>6</sub>alkyl or heteroaryl; wherein the said groups may be substituted by halogen, cyano, nitro, amin\_, hydroxy, carbonyl, carboxyl, formyl, carbonamide or by sulfonamide;

 $R_{149}$  is hydrogen,  $C_1$ - $C_8$ alkyl or  $C_1$ - $C_4$ haloalkyl; each  $R_{150}$  is independently of any other(s) hydrogen, halogen,  $C_1$ - $C_4$ alkyl,  $C_1$ - $C_4$ alkoxy,  $C_1$ - $C_4$ alkylthio,  $C_1$ - $C_4$ alkylsulfonyl, cyano, nitro, formyl or carboxyl;

R<sub>151</sub> Is hydrogen, C<sub>1</sub>-C<sub>6</sub>alkyl or C<sub>1</sub>-C<sub>4</sub>haloalkyl; each R<sub>152</sub> is independently of any other(s) hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub>alkyl, C<sub>1</sub>-C<sub>4</sub>haloalkyl, C<sub>1</sub>-C<sub>4</sub>alkoxy, C<sub>1</sub>-C<sub>4</sub>alkylthio, C<sub>1</sub>-C<sub>4</sub>alkylsulfonyl, cyano, nitro, formyl or carboxyl;

o is 0, 1, or 2, and p is 0, 1 or 2;

or of formula XXIX

#### wherein

R<sub>159</sub> is hydrogen, formyl, C<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkenylcarbonyl, C<sub>1-6</sub>alkynylcarbonyl, C<sub>1-6</sub>alkoxycarbonyl, C<sub>1-6</sub>alkylthiocarbonyl, C<sub>3-8</sub>cycloalkylcarbonyl, phenyl-C<sub>1-6</sub>alkylcarbonyl, phenylcarbonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkenylsulfonyl or phenylsulfonyl, wherein the aforementioned hydrocarbon groups may be substituted by one or more halogen atoms, cyano, nitro, amino, methoxy, ethoxy or phenyl;
R<sub>153</sub> is hydrogen, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkenyl, C<sub>1-6</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, formyl, C<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkenylcarbonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkoxycarbonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkylsulfonyl or phenylsulfonyl, wherein the afore-method hydrocarbonyl

gr ups may be substituted by one rm re halog n atoms, cyano, nitro, amino, methoxy, eth xy or phenyl;

R<sub>154</sub> is hydrogen, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>alkenyl, C<sub>1-6</sub>alkynyl, C<sub>3-8</sub>cycloalkyl, formyl, C<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkynylcarbonyl, C<sub>1-6</sub>alkynylcarbonyl, C<sub>1-6</sub>alkylthiocarbonyl, C<sub>3-8</sub>cycloalkylcarbonyl, C<sub>1-6</sub>alkylsulfonyl, C<sub>1-6</sub>alkylsulfonyl or phenylsulfonyl, wherein the afore-mentioned hydrocarbon groups may be substituted by one or more halogen atoms, cyano, nitro, amino, methoxy, ethoxy or phenyl;

R<sub>155</sub>, R<sub>156</sub>, R<sub>157</sub>, and R<sub>158</sub> are each independently of the others hydrogen, halogen, amino, C<sub>1-3</sub>alkylamino, C<sub>1-6</sub>dialkylamino, hydroxy, cyano, nitro, formyl, carboxyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>haloalkoxy, C<sub>1-6</sub>alkylcarbonyl, C<sub>1-6</sub>alkoxycarboxyl, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>haloalkyl, C<sub>1-6</sub>alkenyl or C<sub>1-6</sub>alkynyl; or R<sub>153</sub> and R<sub>158</sub>, together with the ring atoms to which they are bonded, form a five- or six-membered, partially saturated or unsaturated ring that may contain up to 2 identical or different hetero atoms from the group oxygen, sulfur and nitrogen, it being possible for that ring to be substituted by an oxo radical.

- 8. A composition according to claim 7 that comprises a herbicideantagonistically effective amount of a safener of formula X, XI, XII, XIII, XIV, XV, XVI, XVII, XVIII, XIX, XX, XXI, XXII, XXIII, XXIV or XXV.
- 10. A method according to claim 9 that comprises treating the useful plants, the seeds or cuttings thereof or the area of cultivation the reof with a herbicideantage nistically effective amount of a safener of formula X, XI, XII, XIII, XIV,

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XV, XVI, XVII, XVIII, XIX, XX, XXI, XXII, XXIII, XXIV or XXV, according to claim 7.

- 11. A composition according to claim 4 that further comprises spray tank adjuvants.
- 12. A composition according to claim 7 that further comprises spray tank adjuvants.
- 13. A compound of formula (XXXIa)

wherein  $R_1$  and  $R_3$  are ethyl and Hal is chlorine, bromine or iodine.

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Number of pages

24 including cover page

Date

October 18, 2002

Concerning

Patent Application No. 10/070,767 Our Reference: PH/5-31141A

Dear Mr. Stanback:

Please find the attached in reference to the above mentioned patent application.

Very truly yours,

Syngenta Crop Protection, Inc.

Rose M. Allen

RMA: kmw